

Trend of Long-Term Debts in the United States, 1934-37

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PPRIVATE long-term debts in the United States fell 4 billion dollars from an estimated total of 74.3 billion in 1934 to 70.3 billion in 1937, extending a downward movement in progress since 1930. Public debts, comprising debts of Federal, State, and local governments, continuing an upward trend in progress since 1930, rose from 46.8 billion dollars in 1934 to 55.9 billion in 1937, an increase of 9.1 billion dollars.

Estimated interest payable accruing on long-term indebtedness, as shown in table 1, declined from 5.85 billion dollars in 1934 to 5.45 billion in 1937, a decline of 400 million dollars, or 6.9 percent. A falling rate of interest, which enabled many borrowers to refund their debts at lower interest rates, and the relatively large sums obtained by the Federal Government at rates lower than the average were the major factors giving rise to this divergence in trend between the aggregate amounts of interest payable and debt outstanding.

The average rate of interest payable on private long-term debt declined from 5.63 percent of debt outstanding in 1934 to 5.28 percent of debt outstanding in 1937. The amount of interest payable on private long-term debt declined from 4.18 billion dollars to 3.71 billion during this 3-year period. During this time the interest payable on public debt experienced a relatively slight change. After declining 82 million to 1.59 billion in 1935, interest payable on the public debt rose during the 2 succeeding years to 1.74 billion in 1937, or only about 70 million more than the 1934 total. The estimated average rate of interest payable on public debt in 1934 was 3.57 percent, as compared with 3.11 percent in 1937.

The scope and concepts employed in measuring long-term debts determine to a very considerable extent the size of the debt estimates. The sources and definitions used in this study are, in general, the same as those employed in an earlier study¹ of long-term debts covering the period from 1912 to 1934. As in the

¹ The concepts and methods employed are the same as those used in the earlier study made by this Bureau noted in the paragraph below, except in the compilation of industrial and public-utility long-term-debt totals. In the present article, the totals for the two groups are compiled from *unconsolidated* balance sheets submitted with Federal income tax returns under the Revenue Act of 1934. Estimates in the earlier study are based in part on *consolidated* balance sheets. Smaller revisions in farm-mortgage and urban real-estate mortgage totals are the result of improvement in the available primary data. Estimates of the earlier study for 1934 are given in the footnotes of table 1.

For a comprehensive discussion of the concepts, scope, and limitations of the long-term-debt estimates, as well as the sources and methods of estimation, the reader is referred to the volume entitled "Long-Term Debts in the United States," by Donald C. Horton, published by the Department of Commerce as Domestic Commerce Series No. 96. Copies of this publication may be obtained for 20 cents a copy from the Superintendent of Documents, Washington, D. C., or from any District Office of the Bureau of Foreign and Domestic Commerce.

earlier study, the debtor unit is the separate reporting business unit. In the main, these consist of various governmental units, individuals, unincorporated business enterprises, and private corporations.

Balance-sheet data submitted in connection with filing Federal income-tax returns constitute an important source of long-term-debt information. The Revenue Act of 1934 materially changed the reporting unit for industrial and public-utility corporations. Under this act, the filing of consolidated corporate tax returns is limited to steam railways. Generally, the industrial and public-utility debt totals of this study reflect the debts of operating units as shown on unconsolidated financial statements and, accordingly, are not strictly comparable with totals of the earlier

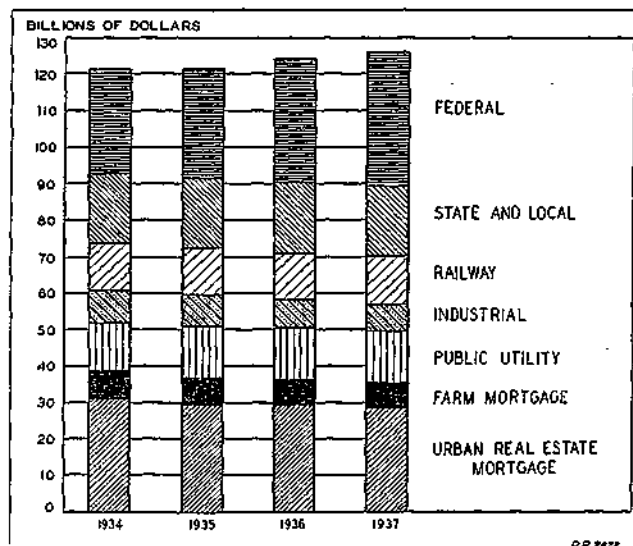


Figure 4.—Estimated Long-Term Debt, by Major Classes.

study, which were based in part on consolidated statements. Owing to a paucity of information, no attempt was made to include the debts of individuals and

The debt totals for Federal, State, and local governments include debts maturing in less than 1 year from date of issue, since such short-term debts are quite generally refunded upon maturity. Factors such as a relatively lower interest rate on short-term debt as compared with long-term debt, or the distribution of maturities on existing debt may cause governmental units to finance a part of their long run financial requirements with short-term credit instruments. The amount of such debts included is stated in the footnotes of table 1 and elsewhere in this article. The debt totals for railroad, industrial, public utility, and other corporations do not include short-term liabilities. It is estimated that the short-term liabilities of private corporations and individuals together with the liabilities of banks to depositors, and liabilities of insurance companies to policy holders, etc., would approximate in amount the public and private long-term debt outstanding. Studies show that public and private long-term and short-term debt outstanding in 1937 is approximately the same in amount as that outstanding in 1929. Debt estimates which will include short-term debts of private corporations and individuals are now in preparation.

unincorporated enterprises except in the farm-mortgage and urban real-estate mortgage categories.

Volume and Composition of Private Long-Term Debt

Private long-term debts, as classified in this study, are divided into five groups: (1) Railway, (2) industrial, (3) public utility, (4) farm-mortgage, and (5) urban real-estate mortgage debts. To permit a more detailed analysis, the industrial, public-utility and urban real-estate mortgage debt totals are further subdivided.

Railways.

The volume of long-term debts of all steam railways in the United States, including switching and terminal companies, comprising 18 percent of private long-term debt, declined moderately—from 13.4 billion dollars in 1934 to 13.1 billion in 1937, a decline of 2.3 percent. These debt totals consist of funded debt unmatured, funded debt matured and unpaid,² and receivers'

² Railway funded debt matured and unpaid consists of bonds in default of principal and is classed as a current liability by the Interstate Commerce Commission. In this debt study, however, it is treated as long-term debt, since it was so classified prior to default and may in the ordinary course of financial reorganization again be refunded or converted into other forms of long-term capital. Railway funded debt matured and unpaid should be distinguished from railway bonds in default of interest or principal. On December 31, 1937, there were \$2,774,000,000 railway bonds in default of interest or principal. Bonds in default of interest but not yet matured are included in funded debt unmatured.

certificates. As shown in table 2, unmatured funded debt outstanding declined 576 million dollars from 1934 to 1937, partly as a result of a transfer of debt in default of principal to funded debt matured and unpaid.

Table 2.—Railway Funded Debt

(In millions of dollars)

Year	Funded debt unmatured	Funded debt matured and unpaid	Receivers' certificates	Total funded debt
1934.....	13,047	321	45	13,413
1935.....	12,747	452	52	13,251
1936.....	12,624	576	65	13,265
1937.....	12,471	573	65	13,109

Source: Interstate Commerce Commission, Statistics of Railways—Statements 17, 42, 43, and 44.

A large portion of unmatured debt outstanding in 1937—9.89 billion out of 12.47 billion—consisted of mortgage bonds. Collateral trust bonds accounted for 812 million; equipment trust obligations for 562 million; income bonds, the principal of which is usually secured by mortgage lien, although interest is contingent upon income, 313 million; and miscellaneous funded obligations for the remaining 896 million. No material change occurred in the composition of unmatured

Table 1.—Estimated Public and Private Long-Term Debt, Average Interest Rate, and Interest Payable, in the United States, 1934-37¹

(In millions of dollars)

Item	1934				1935				1936				1937			
	Debt	Percent of total debt	Average interest rate	Interest payable	Debt	Percent of total debt	Average interest rate	Interest payable	Debt	Percent of total debt	Average interest rate	Interest payable	Debt	Percent of total debt	Average interest rate	Interest payable
PUBLIC DEBT																
Federal.....	27,944	23.1	2.960	827	29,596	24.4	2.554	756	33,690	27.1	2.570	866	36,715	29.1	2.568	943
State and local.....	18,823	15.5	4.48	844	18,972	15.6	4.39	833	19,212	15.4	4.26	818	19,152	15.2	4.16	797
Total, public debt.....	46,767	38.6	3.67	1,671	48,568	40.0	3.27	1,589	52,911	42.5	3.13	1,684	55,867	44.3	3.11	1,740
PRIVATE DEBT																
Railway.....	13,413	11.1	4.59	615	13,251	10.9	4.60	610	13,265	10.7	4.55	604	13,109	10.4	4.55	596
Industrial.....	8,800	7.3	5.60	493	8,376	6.9	5.55	465	8,040	6.5	5.42	436	7,762	6.1	5.28	410
Public utility.....	13,597	11.2	5.09	692	13,850	11.4	4.99	691	13,790	11.1	4.86	670	13,374	11.0	4.71	653
Farm mortgage.....	7,045	6.3	5.78	442	7,560	6.2	5.33	400	7,255	5.8	5.25	381	7,082	5.6	5.25	372
Urban mortgage.....	30,845	25.5	6.30	1,943	29,854	24.6	6.10	1,821	29,109	23.4	6.00	1,747	28,505	22.6	5.90	1,652
Total, private debt.....	74,300	61.4	5.63	4,185	72,831	60.0	5.47	3,987	71,459	57.5	5.37	3,838	70,335	55.7	5.28	3,713
Total, long-term debt.....	121,067	100.0	4.84	5,856	121,399	100.0	4.59	5,576	124,370	100.0	4.44	5,522	126,202	100.0	4.32	5,453

¹ All estimates are considered as of end of calendar year, except those for State and local debt, which are as of June 30. Approximately three-fourths of the State and local government units end their fiscal year on June 30 or during the 3 months immediately preceding June 30.

Unless specifically noted, the sources listed below are used only for estimates on volume of debt outstanding:

1. *Federal debt*.—Annual Report of the Secretary of Treasury, June 30, 1937, table 33, p. 442, and the Dec. 31, 1937 statement of public debt, for volume of interest-bearing debt outstanding, computed annual interest charges and computed rate of interest. The Federal debt totals include short-term debt consisting of bills and certificates of indebtedness in the following amounts: 1934, 1,954 million dollars; 1935, 2,404 million; 1936, 2,203 million; 1937, 2,602 million. Comparable figures for total Federal debt for fiscal years ending June 30 are: 1934, 28,499 million dollars; 1935, 27,645 million; 1936, 32,756 million; 1937, 35,903 million.

2. *State and local debt*.—Annual Report of the Secretary of Treasury, June 30, 1937, tables 39 and 51, pp. 465-469, for volume of tax-exempt interest-bearing debt outstanding as of June 30 for years covered. State and local debt totals include short-term interest-bearing debts which in 1937 amounted to 891 million dollars. Short-term debt estimates for the remaining years are not available. The estimate of June 30, 1937, is based in part on a questionnaire survey conducted by the Treasury Department in cooperation with the Department of Commerce, Bureau of Census. The previously published estimates for the years 1932 through 1936 were revised in conformity with this survey. Interest payable determined by comprehensive sample of outstanding debt in 1934 as described in "Long-Term Debts, 1912-34," and by sample of new issues during 1934-37 period.

3. *Railway debt*.—Compiled from data of the Interstate Commerce Commission, Statistics of Railways, statements 17, 42, 43, 45, and 46 for volume of railway debt for 1934-37. Interest accrued on funded debt unmatured presented in Statement 24 comprises a large part of interest payable on railway debt, presented in the table. The remainder consists of interest payable on receivers' certificates and matured but unpaid funded debt.

4. *Industrial and public-utility debt*.—Bonds and mortgage compilations from tax returns of the Bureau of Internal Revenue for the 1935 total. Using the 1935 aggregate as a base, the totals for 1934, 1936, and 1937 were extrapolated by means of a corporate sample. Interest payable determined by comprehensive sample of outstanding debt in 1934 and by new issues and retirements during 1934-37 period.

5. *Farm-mortgage debt*.—Bureau of Agricultural Economics, from reports on farm-mortgage debt by Donald O. Horton and E. J. Enquist, *Agricultural Finance Review*, May 1938 and November 1938. Interest payable, Bureau of Agricultural Economics.

6. *Urban-real-estate mortgage debt*.—Division of Research and Statistics, Federal Home Loan Bank Board, for volume of outstanding mortgages on 1- to 4-family dwelling houses. Bureau of Internal Revenue for bonds and mortgages of real-estate mortgage corporations. Estimates on the remainder of urban mortgages outstanding are based chiefly on the financial statements of banks, saving and loan associations, and life-insurance companies; and on the published volume of real-estate mortgage purchases by life-insurance companies.

The 1934 totals for industrial, public-utility, farm-mortgage, and urban-mortgage long-term debt presented above represent revisions of the preliminary estimates given in *Long-Term Debts, 1912-34*. The previously published totals for 1934 are: Industrial, 8,472 million dollars; public utility, 14,780 million; farm mortgage, 7,770 million; urban real-estate mortgage, 30,440 million, composed of 17,740 million of urban home-mortgage debt and 12,700 million of other urban realty debt. In the above table, urban real-estate mortgage debt for 1934 is estimated at 30,845 million dollars, of which 18,145 million consists of urban home-mortgage debt, and 12,700 million consists of other urban realty debt.

railway funded debt during the period of this study. In addition to the funded debt shown above, railroads in the United States had outstanding on December 31, 1937, 2.16 billion of nominally issued or nominally outstanding funded debt, held by or for steam railways.

The importance of long-term debt in railway finance is evident when compared with reported railway capitalization, investment, and income. In 1937, long-term debt accounted for 57 percent of railway capitalization of 23.1 billion dollars, consisting of 10 billion in capital stock and 13.1 billion in long-term debt. Investment in railway property, as reported by the railway companies, amounted to 26.6 billion.

Total income of railroads available for interest and other charges in 1937 equaled 731 million, against which there were interest and other charges of 614 million, not including 12.9 million contingent interest on income bonds, leaving net income, after charges, of 117 million. In 1936 and 1935, net income after all charges, except contingent interest charges of approximately 13 million, amounted to 194 and 24 million, while there was a deficit of 20 million in 1934. These figures cover all classes of steam railways considered as a single system, including switching and terminal companies. The ratio of total income available for interest on funded debt to such charges was subject in the years covered to wide variation, depending largely on general economic conditions, while the ratio of funded debt to railway capitalization and to investment experienced only a slight change.

Industrials.

Long-term industrial debts declined slightly more than 1 billion dollars during the 1934-37 period from 8.80 billion in 1934 to a year-end total of 7.76 billion in 1937. A large part of long-term industrial debt consists of the debts of corporations engaged in manufacturing, mining and quarrying, agriculture and related industries, construction, and trade. In 1935, the latest year for which a break-down is available, the debts of the 248,885 corporations engaged in these industries aggregated 6.8 billion, or slightly more than 80 percent of total long-term industrial debts outstanding in that year.

The debts of 40,093 corporations performing some class of service aggregated 3.5 billion in 1935. Of this sum, an estimated total of 2 billion¹ represents the debts of corporations owning and operating hotels, restaurants, office buildings, and apartment houses, which in this study are included in urban real-estate mortgage debt. The remainder of the debt, amounting to 1.5 billion, consists of the debts of corporations engaged in motion-picture production, and in the operation of theaters, health and pleasure resorts, laundries, etc., and is included in industrial debt.

¹ The estimated volume of real-estate mortgage long-term debts appearing in the debt totals of service corporations is based on an analysis of the transfers of real-estate mortgage corporations by the Bureau of Internal Revenue from the finance to the service classification during 1932-35.

Debt reduction resulting from corporate reorganizations was a substantial factor in the decline of industrial long-term debt during the 1934-37 period. A special analysis of the 871 industrial corporations, selected without reference to their solvency, disclosed that 79 were in receivership during all or a part of this period. Of the corporations in receivership, 68 were reorganized by the end of 1937. Due principally to the terms of reorganization, outstanding long-term debt was reduced from 511 million dollars to 275 million, a decline of 46 percent. This compares with a decline of only 8 percent in outstanding long-term debt of the 792 solvent companies for the 3-year period.

Flotations of long-term securities⁴ to provide new capital, while not large enough to offset debt retirement, rose from 28 million in 1934 to 176 million in 1935, to 254 million in 1936, and to 339 million in 1937. These sums include all issues offered publicly and those placed privately on which information was obtainable. In

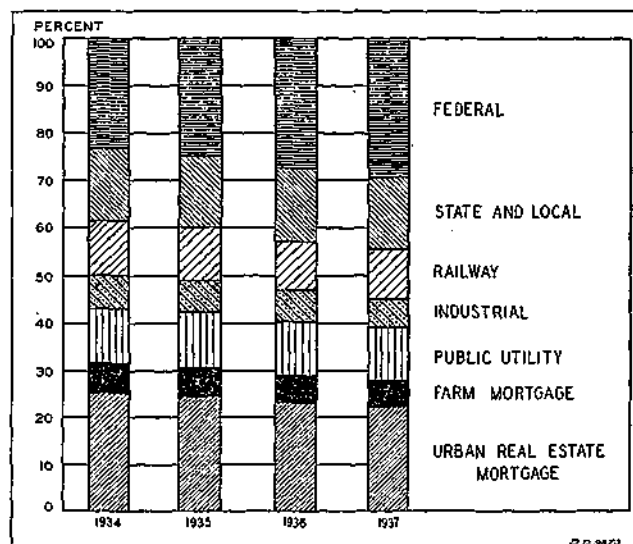


Figure 5.—Percentage Distribution of Estimated Long-Term Debt, by Major Classes.

addition to the above, many of the smaller industrial corporations, as disclosed by an examination of the financial statements of approximately 1,200 corporations, made loans typically of 1 to 5 years' duration with banks and others. These loans augmented new long-term borrowing of industrials by approximately 30 percent.

In 1935, industrial capital assets, consisting of land, buildings, and equipment, less depreciation and depletion, aggregated 34 billion dollars, or four times the industrial long-term debt of 8.38 billion; while total assets of 87 billion exceeded long-term debt tenfold. The relative importance of long-term debt to equity is indicated in the comparison of long-term debt with a capitalization of 63.3 billion, composed of 7.6 billion of

⁴ As compiled by the Commercial and Financial Chronicle, industrial bond and note flotations, including refundings, totaled 300 million dollars in 1934, 650 million in 1935, 946 million in 1936, and 471 million in 1937.

preferred stock, 33.8 billion of common stock, and 21.9 billion of surplus and undivided profits.

Lack of uniformity in accounting practice and variation in the appraisal of certain classes of assets make the above comparisons of limited value, but they do serve as general indicators of the important relationship between debts, assets, and capitalization.

Public Utilities.

Long-term public-utility debts increased 277 million dollars during the 1934-37 period from 13.59 billion in 1934 to a year-end total of 13.87 billion in 1937. While public-utility bond and note flotations to raise new capital continued in relatively small volume, they showed a growth from 49 million in 1934 to 82 in 1935, 119 in 1936, and 145 million in 1937. Refunding operations—partly to replace maturing issues, but principally to obtain lower rates of interest—reached their peak in 1936, when refundings totaled 1.95 billion, as compared with 109 million in 1934, 1.16 billion in 1935, and 567 million in 1937.

Of the total long-term public-utility debt outstanding in 1935, electric light and power companies accounted for 6.73 billion, or 49 percent. Three other classes of utilities had a considerable volume of outstanding debt. Electric-railway transportation companies ranked second, with 2.48 billion; telephone and telegraph companies third, with 1.45 billion; artificial and natural gas concerns fourth, with 914 million; water transportation and related industries, 309 million; cartage and storage, 225 million; pipe lines, 225 million; autobus lines and taxicab companies, 39 million; aerial transportation, 10 million; radio broadcasting, 3 million; and miscellaneous public utilities, 1.12 billion.

Public-utility capital assets, as reported by the companies, aggregated 26 billion dollars in 1935, or approximately twice the long-term debts outstanding. Total assets equalled 40 billion, or nearly three times long-term debts. While not intended as more than a rough comparison, the ratio of long-term debts to total assets is higher for public utilities than for industries, but somewhat lower than that of railroads.

Farm Mortgages.

Farm-mortgage debt declined 1.56 billion dollars, or 17 percent, from a near all-time high of 9.21 billion at the end of 1929 to 7.65 billion at the end of 1934. During this period, debt reduction through retirements out of income was greatly augmented by liquidation of debt through foreclosure or assignment of title to the mortgageholder. Distress transfers rose from 21 to 54 per 1,000 farms between 1929 and 1932, but declined sharply following the passage of the Emergency Farm Mortgage Act in May 1933. Many loans in difficulty were refinanced by the Federal land bank and the Land Bank Commissioner. The Emergency Farm Mortgage Act of 1933 empowered the Land Bank Commissioner to make loans on a basis somewhat more

liberal than those made by the Federal land bank. Distress transfers fell to 28 per 1,000 farms in 1934, and became a lesser factor in debt reduction as they declined further to 18 per 1,000 farms in 1937. Farm-mortgage debt continued to decline from 7.65 billion in 1934 to 7.08 billion in 1937, the smallest farm-mortgage debt in more than 17 years.

Additional light is thrown on farm-mortgage debt reduction by the volume of farm real estate acquired by the Federal land bank, Federal Farm Mortgage Corporation, joint-stock land banks, life-insurance companies, and three State credit agencies.⁵ These agencies held property valued at approximately 200 million at the end of 1929. This increased to 840 million in 1934 and to slightly less than 1 billion in 1937. Valuation of the acquired property was based principally on the amount invested by the lenders. Farm property held by these agencies at the end of 1936 was placed at 28,145,325 acres. These figures do not fully reflect the total volume of farm properties acquired, since they do not include the volume of properties disposed of during the period. On December 31, 1937, loans held by the Federal land bank on which there were delinquent installments were 285 million dollars.

Important shifts in the volume of farm mortgages held by leading lending agencies occurred from 1929 to 1937. As presented in table 3, holdings of the Federal Land Bank and Land Bank Commissioner increased markedly—from 13 percent of all outstanding farm-mortgage debt in 1929 to 33 percent in 1934 and 40 percent in 1937. Life-insurance companies, on the other hand, held only 13 percent in 1937, as compared with 23 percent of a much larger total in 1929. The remaining lender groups, consisting of joint-stock land banks in process of liquidation since May 1933, banks, mortgage companies, State credit agencies, endowment and educational institutions, individuals, and miscellaneous lenders, held 47 percent of the 1937 total, compared with 64 percent of all outstanding farm-mortgage debt in 1929.

Farm lands and buildings were estimated by the Bureau of Agricultural Economics to have a value of 32.9 billion dollars in 1934, or slightly more than four times the farm-mortgage debt of 7.65 billion then outstanding. This compared with an estimated value of 35.7 billion for 1937, or five times the farm-mortgage debt of 7.08 billion outstanding in that year, indicating a declining ratio of debt to value of farm property during this period. The ratio of debt to value of mortgaged farms is considerably higher, however, since the value of farm lands and buildings free of debt is included in the foregoing estimates. The ratio of debt to value of mortgaged farms operated by full owners equalled 50.2 percent in 1935.⁶

⁵ Outstanding Farm-Mortgage Loans of Leading Lending Agencies, by Norman J. Wall, Bureau of Agricultural Economics, p. 5.

⁶ Table 7, p. 12, of a cooperative survey of the Bureau of the Census and the Bureau of Agricultural Economics entitled "Farm-Mortgage Indebtedness in the United States."

Table 3.—Estimated Farm Mortgage Debt Held by Principal Lending Agencies, 1929, and 1934-37

[In millions of dollars]

Lending agencies	1929		1934		1935		1936		1937	
	Debt	Percent	Debt	Percent	Debt	Percent	Debt	Percent	Debt	Percent
Federal land bank and Land Bank Commissioner	1,186	12.9	2,502	32.7	2,854	38.1	2,889	39.8	2,836	40.0
Joint-stock land banks	627	6.8	256	3.3	176	2.3	133	1.8	104	1.5
Life-insurance companies	2,105	22.8	1,250	16.5	1,055	14.1	930	12.9	895	12.6
Open State and national banks	1,945	10.3	499	6.5	488	6.5	488	6.7	501	7.1
State credit agencies ¹	93	1.0	62	1.0	48	.6	33	.5	25	.4
Individuals, endowments, educational institutions, and others	4,258	46.2	3,067	40.0	2,879	38.4	2,776	38.3	2,721	38.4
Total farm-mortgage debt	9,214	100.0	7,645	100.0	7,500	100.0	7,255	100.0	7,082	100.0

¹ Figures are for 1930.² Rural Credit Board of South Dakota, Bank of North Dakota, and Department of Rural Credit of Minnesota.

Source: Adapted from reports on farm-mortgage debt by Donald C. Horton and E. J. Engquist, Jr., in the May 1933 and the November 1933 issues of the Agricultural Finance Review.

Urban Real-Estate Mortgages.

Continuing a trend in progress since 1930, urban real-estate mortgages secured by one-family to four-family urban or nonfarm homes declined 840 million dollars from 18.14 billion in 1934 to 17.30 billion in 1937. As presented in table 4, the lending activities of the several lending agencies in the real-estate mortgage field varied widely during this period. The annual volume of loans of the Home Owners' Loan Corporation, created in 1933 to refinance distressed home mortgages, fell from 2.1 billion in 1934 to only 154 million in 1936 and 27 million in 1937. Improved financial conditions and the expiration of the lending power of Home Owners' Loan Corporation were responsible for this decline in lending activity. Conversely, the volume of loans made by the remaining classes of lenders increased yearly from 1934 to 1937.

Foreclosures, as measured by an index covering 75 metropolitan communities, rose from 100 in 1926 to 395 in 1933, and fell to 370 in 1934 and to 205 in 1937. Based on a somewhat larger survey, the rate of foreclosures averaged 6.8 per 1,000 nonfarm dwellings in the year ended July 31, 1938. Some pertinent data on delinquencies may be obtained from the experience of the Home Owners' Loan Corporation⁷ with refinanced home real-estate mortgages. This agency closed 1,018,171 loans in the aggregate amount of \$3,093,459, 271 during the 3 years of its lending activities.⁸

Foreclosure actions totaling 97,835, or slightly more than 9 percent of the homes refinanced, were authorized up to June 30, 1937. In 88 percent of the foreclosures, the foreclosure action occurred after delinquencies in both principal and interest had run for more than 1 year, and in 63 percent of the cases more than 18 months,

⁷ Annual Report of the Federal Home Loan Bank Board, June 30, 1937.⁸ In addition, Home Owners' Loan Corporation made approximately 8,000 supplementary loans for reconditioning to borrowers who had previously received refinancing loans.

with taxes unpaid. Since authorization of foreclosure did not close redemption opportunities to borrowers, the number of properties actually acquired amounted to only 4.4 percent of the homes refinanced. Up to June 30, 1937, the Home Owners' Loan Corporation had acquired 44,859 properties, of which 2,373 had been sold. The corporation reported a marked improvement in the financial condition of the mortgagors for 1937, and this was reflected in collections which averaged over 90 percent of billings.

Table 4.—Estimated Outstanding Mortgage Loans on 1- to 4-family Urban Homes and Amounts Loaned Annually for Construction and Other Purposes on Such Homes by Private and Governmental Agencies in the United States, 1934-37

[In millions of dollars]

Item	1934		1935		1936		1937	
	Debt	Percent	Debt	Percent	Debt	Percent	Debt	Percent
OUTSTANDING MORTGAGE LOANS								
Commercial banks, total	1,189	6.6	1,189	6.7	1,230	7.1	1,400	8.1
Life-insurance companies	1,535	8.4	1,351	7.6	1,305	7.5	1,330	7.7
Mutual savings banks	3,000	16.5	2,850	15.8	2,750	15.8	2,700	15.6
Savings and loan associations	4,012	22.1	3,467	19.5	3,361	19.3	3,480	20.1
Home Owners' Loan Corporation	2,209	12.2	2,897	16.3	2,763	15.8	2,398	13.8
Individuals and others	6,200	34.2	6,000	33.8	6,000	34.5	6,000	34.7
Total, all lenders	18,145	100.0	17,754	100.0	17,409	100.0	17,308	100.0
MORTGAGE LOANS DURING YEAR								
Commercial banks	55	2.1	184	10.3	300	16.1	355	17.5
Life-insurance companies	16	.6	77	4.3	158	8.5	221	10.9
Mutual savings banks	80	3.0	80	4.5	100	5.4	132	6.5
Home Owners' Loan Corporation	2,116	78.5	722	40.2	154	8.3	27	1.3
Savings and loan associations	327	12.1	431	24.0	547	29.4	689	34.1
Individuals and others	100	3.7	300	16.7	600	32.3	600	29.7
Total, all lenders	2,694	100.0	1,794	100.0	1,859	100.0	2,024	100.0

Source: Home Loan Bank Board, Division of Research and Statistics.

A survey⁹ of residential property in 52 cities indicates that 58.3 percent of owner-occupied and 42.8 percent of rented residential property was mortgaged, as of January 1, 1934. This survey further discloses that the average ratio of mortgage debt to value of property equaled 55.6 percent for owner-occupied properties and 60.4 for rented properties. Debts, as here defined, refer to principal only, and values represent the estimated market value reported by the owners.

In addition to the outstanding urban mortgage loans on one-family to four-family homes, there should be added to the urban mortgage debt total the mortgage debt secured by office, commercial, apartment, hotel, and other urban property owned by individuals and unincorporated enterprises, and the debts of those real-estate mortgage corporations¹⁰ not included in the industrial classification, estimated at 12.7 billion for 1934, 12.1 billion for 1935, 11.7 billion for 1936, and 11.2 billion for 1937. Debts of real-estate mortgage

⁹ Financial Survey of Urban Housing, U. S. Department of Commerce.¹⁰ There were 60,748 corporations with bonded debt and mortgages of 5.64 billion given a financial classification in Internal Revenue compilations for 1935. In addition, estimated bonded debt and mortgages of real-estate mortgage companies classified as service corporations totaled 2 billion in 1935.

corporations, amounting to 7.64 billion in 1935, accounted for approximately 60 percent of this class of urban-realty debt in these years. Comprising 40 percent of private long-term debt, outstanding urban real-estate mortgage loans of 28.5 billion in 1937 comprised the largest class of private long-term debt.

Federal, State, and Local Debt

The figures used to state the size of the Federal debt at any time depend to some extent on the precise definition employed. The Federal-debt figures presented in table 1 consist of total interest-bearing debt outstanding, amounting to 36.7 billion dollars on December 31, 1937. Of this sum, 22.48 billion dollars consists of bonds, 11.62 billion of Treasury notes, 1.95 billion of Treasury bills, and 655 million of certificates of indebtedness maturing in 1938. There was outstanding at the end of 1937 matured debt on which interest had ceased equaling 99 million dollars, and other debt bearing no interest, consisting of United States notes, etc., amounting to 472 million. If these sums are included, the total interest-bearing and non-interest-bearing debt outstanding aggregated 37.27 billion dollars. If the net cash balance of 2.97 billion dollars in the general fund is subtracted from the foregoing total, the gross debt less the net balance in the general fund amounted to 34.30 billion. Federal agencies and Federal trust funds held, not including the securities issued by Federal agencies, 3.18 billion dollars of United States obligations as of June 30, 1937.

Governmental corporations and credit agencies had outstanding as of June 30, 1937, 10.55 billion dollars of interest-bearing securities. This total was one-half billion dollars under the peak volume of 11.07 billion outstanding in 1936, and somewhat less than 4 billion above the 6.74 billion dollars outstanding in 1934.

At the close of the fiscal year 1937, 3.86 billion out of a total of 10.55 billion dollars represented issues of the Reconstruction Finance Corporation,¹¹ and 3.65 and 3.04 billion represented issues of agencies of the Federal Farm Loan System and the Federal Home Loan System respectively.

The United States Government owned 3.63 billion dollars of these securities in 1937; in addition, the

Federal agencies themselves held 1.16 billion, and Federal trust funds 45 million, bringing the aggregate Government holdings up to 4.84 billion dollars. The remaining 5.71 billion dollars, of which 4.32 billion was guaranteed by the United States Government, was held by nongovernment investors.

State and local governmental units had outstanding, as of June 30, 1934, interest-bearing debts (including short-term loans, aggregating 18.82 billion dollars,¹² as compared with 18.97 billion in 1935, 19.21 billion in 1936, and 19.15 billion in 1937.

Table 5.—Estimated Interest-Bearing Securities of Federal Agencies Outstanding, Amounts Held by the U. S. Government, Federal Agencies and Federal Trust Funds, and by Nongovernment Investors, 1934-37

(In millions of dollars)			
Year ended June 30	Total outstanding	Held by U. S. Government, Federal agencies, and Federal trust funds	Held by nongovernment investors
1934	6,735	3,708	3,027
1935	30,177	4,932	5,225
1936	11,066	5,334	5,732
1937	10,547	4,835	5,712

Source: U. S. Treasury, Division of Research and Statistics.

A total of 3.77 billion dollars of State and local securities was held in State and local trust, investment, and sinking funds, and a total of 528 million was held by Federal agencies in 1937, leaving net outstanding issues of 14.85 billion dollars in that year.

As indicated in table 6, interest-bearing State debts totaled 3.24 billion dollars, or 16.9 percent of all State and local interest-bearing debt outstanding in 1937, as compared with 2.83 billion outstanding in 1932, the only other recent year in which a segregation of State and local debts has been made. The debts of municipalities, comprising the largest part of local indebtedness, totaled 9.97 billion in 1937, as compared with 10.21 billion in 1932. The debts of counties and school districts accounted for the bulk of the remaining interest-bearing State and local debt.

Non-interest-bearing short-term debts, consisting chiefly of unpaid warrants, amounted to 227 million dollars, and non-interest-bearing long-term debts, composed in part of Federal loans to western irrigation districts, amounted to 214 million dollars in 1937.

¹¹ Statistics here quoted are as of June 30, 1937. Subsequently, Pub. No. 432, 75th Congress, 3d Session, approved February 24, 1938, authorized "the Secretary of the Treasury to cancel obligations of the Reconstruction Finance Corporation incurred in supplying funds for relief at the authorization or direction of Congress, and for other purposes."

¹² The U. S. Government held State and local securities in the amount of 153 million dollars in 1934, 346 million in 1935, 422 million in 1936, and 528 million in 1937. (Annual Report of the Secretary of Treasury, June 30, 1937, table 51, pp. 466-469.)

Table 6.—State and Local Interest-Bearing and Non-Interest-Bearing Debt, 1932 and 1937, Classified as to Long-Term and Short-Term Obligations¹

(In millions of dollars)

Item	Interest-bearing debt—tax-exempt securities				Non-interest-bearing debt			
	1932		1937		1932		1937	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Long-term debt:								
State.....	2,593.7	14.6	3,084.0	16.9	-----	-----	-----	-----
County.....	2,306.1	13.0	2,237.8	12.3	-----	-----	-----	-----
Municipal.....	9,500.4	53.5	9,485.1	51.9	-----	-----	-----	-----
School district.....	1,982.0	11.2	1,723.8	9.4	-----	-----	-----	-----
Other divisions.....	1,378.4	7.7	1,731.7	9.5	139.9	100.0	214.0	100.0
Total.....	17,771.2	100.0	18,262.4	100.0	139.9	100.0	214.0	100.0
Short-term debt:								
State.....	235.4	17.7	157.6	17.7	66.8	20.0	44.7	19.6
County.....	182.2	13.7	85.5	9.6	43.1	12.9	20.2	8.9
Municipal.....	712.4	53.5	483.9	54.3	128.9	38.0	91.6	40.2
School district.....	157.0	11.8	140.5	15.8	26.7	8.0	18.8	8.3
Other divisions.....	44.4	3.3	23.0	2.6	68.4	20.5	52.4	23.0
Total.....	1,331.4	100.0	890.5	100.0	333.9	100.0	227.7	100.0
Total debt:								
State.....	2,829.1	14.8	3,241.6	16.9	66.8	14.1	44.7	10.1
County.....	2,488.3	13.0	2,323.3	12.1	43.1	9.1	20.2	4.6
Municipal.....	10,212.8	53.5	9,969.0	52.1	128.9	27.2	91.6	20.7
School district.....	2,149.6	11.3	1,864.3	9.7	26.7	5.6	18.8	4.3
Other divisions.....	1,422.8	7.4	1,754.7	9.2	208.3	44.0	266.4	60.3
Total.....	19,162.6	100.0	19,162.6	100.0	473.8	100.0	441.7	100.0

¹ The data for 1932 are the debt statistics as reported by the Department of Commerce, Bureau of the Census, in Financial Statistics of State and Local Governments, 1932. The data for 1937 are based on a questionnaire survey of State and local debts conducted by the Treasury Department in cooperation with the Department of Commerce, Bureau of the Census.

Interest Payable on Long-Term Debts

The concept of "interest payable" as used in this study is intended neither as a measure of interest actually paid nor as an indication of the rate of return or yield of bonds and mortgages sold at various prices above or below par. It is intended to indicate, rather, the amount of interest accruing and payable under the terms of the debt contracts. An interest total of this kind is useful principally in that it indicates the volume of fixed charges as compared with the national income, wealth, and other elements in our national economy. The "interest payable" totals do not include amortization of debt discount and expense.

As indicated in table 1, estimated interest payable declined in absolute amount yearly from 1934 to 1937 for each of the five classes of private debt. The smallest decline in interest payable, as distinguished from interest actually paid, occurred in railway debt, as a result of an almost unchanged rate and a relatively stable volume of debt. The largest annual volume of interest, as well as the highest rate, was payable by the urban real-estate mortgage group, while the lowest amount was payable on a relatively smaller total of farm-mortgage debt. The lowest rate of interest payable prevailed in the railway group, although the public-utility rate, in declining to 4.71 percent in 1937, approached the average railway rate of that year.

Interest payable, as here defined, includes accruals on bonds in default. From an examination of the volume of bond defaults given in table 7, it is evident that interest actually paid was markedly less than the amount of

interest payable called for in the contracts for each of the groups shown. Especially noteworthy is the rise in the volume of railway bonds and notes in default of interest from 99 million dollars in 1929, to 2.77 billion in 1937, resulting in a widening gap between interest payable and interest actually paid. Applying the computed average rate of interest of 4.55 percent on railway bonds for 1937 to railway bonds in default during that year, defaults in interest may be calculated at approximately 125 million dollars.

Table 7.—Corporate Bonds and Notes in Default of Interest by Major Groups, 1929-37

(Millions of dollars)

Year	Railway	Public-utility	Industrial	Urban real estate	Total, all classes
1929.....	99	236	64	60	459
1930.....	96	285	104	137	622
1931.....	260	371	345	328	1,304
1932.....	411	795	658	739	2,603
1933.....	1,484	906	852	995	4,237
1934.....	1,509	758	731	648	3,644
1935.....	2,386	673	684	572	4,315
1936.....	2,710	561	706	409	4,386
1937.....	2,774	504	552	202	4,092

Source: Wall Street Journal, January 3, 1938.

Equally noteworthy is the rise in real-estate bond and note defaults from 60 million in 1929 to 995 million in 1933 and subsequent decline to 262 million in 1937.¹³ Unlike railway and many other bond defaults of this period, defaults of real-estate mortgage bonds were of relatively short duration. The annual real-estate mortgage bond default totals, therefore, reflect to a lesser extent than for railroads an accumulation of defaults.

As presented in table 8, corporate bond and note defaults in interest totaled 4.09 billion dollars in 1937, as compared with 4.39 billion in 1936, 3.64 billion in 1934, and slightly less than half a billion in 1929.

A comparison of national income produced with interest paid out,¹⁴ as distinguished from interest payable, is presented in table 8 for the years 1934 to 1937. These data show that the percent of interest paid out to national income ranged from 9.7 percent in 1934 to 6.7 percent in 1937.

Table 8.—Ratio of "Interest Paid Out" to "National Income Produced"

(In millions of dollars)

Year	Income produced ¹	Interest paid out ²	Percent of income produced
1934.....	50,052	4,862	9.7
1935.....	55,186	4,725	8.6
1936.....	63,466	4,652	7.3
1937.....	69,817	4,650	6.7

¹ National Income in the United States, 1929-37, U. S. Department of Commerce.

² Estimates of the volume of real-estate bond defaults are probably deficient as a total, and are mainly useful to indicate trend.

³ "Interest payable" indicates more nearly the contract interest liabilities on debts, while "interest paid out" represents, after deduction of defaults, intercompany and other intermediate payments, the sum actually received by individuals or aggregates of individuals, such as life-insurance companies, savings banks, building and loan associations, and other organizations for collective savings.